PEER REVIEW HISTORY

BMJ Open publishes all reviews undertaken for accepted manuscripts. Reviewers are asked to complete a checklist review form (http://bmjopen.bmj.com/site/about/resources/checklist.pdf) and are provided with free text boxes to elaborate on their assessment. These free text comments are reproduced below.

ARTICLE DETAILS

TITLE (PROVISIONAL)	Demand and supply side barriers and opportunities to enhance access to healthcare for urban poor populations in Kenya: a qualitative study
AUTHORS	Bakibinga, Pauline; Kisia, Lyagamula; Atela, Martin; Kibe, Peter; Kabaria, Caroline; Kisiangani, Isaac; Kyobutungi, Catherine

VERSION 1 – REVIEW

REVIEWER	Urtaran-Laresgoiti, Maider
	University of Deusto, Deusto Business School Health
REVIEW RETURNED	25-Sep-2021
GENERAL COMMENTS	Although I believe the study is adequately stated and written to be published, I would suggest doing some review and considering some modifications.
	First, and more important, I recommend adding more quotes in the result section. Specially, in those parts in which you only include one example. Please, consider looking for quotes from different interviews and focus groups to show, if so, that there is an agreement between people from different backgrounds, settings.
	Second, I would suggest including a paragraph or so discussing the idea of the interrelation that could exist between factors and it implications for hindering health care access. Does the data and results show any relation between the sociocultural factors of people with their resources, or the enabling factors with the needs (for example)? It could also be interesting to show gender differences and discuss on it.
	Third, think of the idea to include as an annex the structured guide used in interviews. It could be useful for other researchers interesting to replicate the study in their settings or conduct similar research.
	Below, there are some other points that might need revision. (*Number of pages correspond to the ones inserted by authors at the bottom right of the pages).
	STRENGTHS AND LIMITATIONS OF THIS STUDY: PAGE 3; line 51: "() access in urban poor boor settings". Correct spelling, please. METHODS: PAGE 5; line 121: Eliminate please one of the references to Table 2. RESULTS:

(At the subsection, Recommendations to reduce healthcare
access barriers): PAGE 14. For the description in the manuscript
and the nature of the recommendation, I wonder if it would be
better to place it within the system-level recommendations,
specially the idea of "including access to affordable health
insurance and more economic opportunities".
DISCUSSION:
PAGE 15; line 374: Does it refer to the Nairobi Cross-sectional
Slums Survey (NCSS)? Please correct, if so.
PAGE 15: line 398- PAGE 16; line 403: It seems to be a bit
contradicting the idea of the applicability in other settings. First it is
mention that "Multi-sectoral strategies are needed (…), in this an
related settings"; and then you present it as a limitation "()
information from this setting () might not necessarily be
applicable in other settings". Please, review it and explain reasons
for changing or not.
PAGE 16; line 403. It seems as if the text guide were an error.
Review, please.
TABLE 1: I wonder there is an error in the column "Needed
healthcare in the month prior to the interview". Is it correct the
number 107? Please, if so, explain the meaning of the data

REVIEWER	Trummer, Ursula
	Center for Health and Migration, Vienna
REVIEW RETURNED	24-Oct-2021
GENERAL COMMENTS	This is a very interesting study and comes from a group of Authors based in African Universities addressing a highly relevant health topic for Africa, which is something that is needed and can contribute to a much needed body of knowledge from an African perspective on African issues. I therefore encourage the authors to invest in a major revision of their paper, which shows some room for improvement.
	-> "slum areas" please describe the main features of such an area esp. in health-related terms, e.g. space (overcrowded living space?), sanitation (drinkable water, washing hands) cooking facilities, average income and / or poverty level (absolute/relative poverty)
	 > please clarify the rationale of choosing two different settings - is there a hypothesis that some factors make a difference? -> in the analysis, please contextualise and explain the choice of quotes: are they representative for other answers? or a result of a discussion and consensus-finding process?
	-> are the free maternity health services the main service type for your analysis? If so, please clarify; it not, please elaborate the range of services available
	-> "People with disabilities" -please specify which kind of disabilities (physical/mental)
	-> in your description, "need factors" seem to vary between settings, with diarrhoe and pneumania in the two settings and accidents, TB, diabetes, hypertension in only one setting - please elaborate your analysis on this point
	-> ad Covid 19, the analysis is marginal and should be either elaborated or dropped. If elaborated, issues of access to vaccination, testing, means of protection in this speific setting should be raised.
	-> the analysis and discussion paragraph is not consistently related to the results presented from the interviews (e.g. points like poor sanitation, hygiene)

VERSION 1 – AUTHOR RESPONSE

Response to Reviewer 1:

Mr. Maider Urtaran-Laresgoiti, University of Deusto

Comment 1: First, and more important, I recommend adding more quotes in the result section. Specially, in those parts in which you only include one example. Please, consider looking for quotes from different interviews and focus groups to show, if so, that there is an agreement between people from different backgrounds, settings.

Response: This is noted. In the original version we had more quotes. However, the need to reduce text to accommodate the suggested word limits (4000) resulted in the deletion of extra information. Even in the current version we made sure to include quotes from different interviews. In the feedback sessions, mentioned in the manuscript, we confirmed that there was agreement between different stakeholders. As such, the quotes included here as well as the reflections in the discussion section are representative of different groups.

Comment 2: Second, I would suggest including a paragraph or so discussing the idea of the interrelation that could exist between factors and it implications for hindering health care access. Does the data and results show any relation between the sociocultural factors of people with their resources, or the enabling factors with the needs (for example)? It could also be interesting to show gender differences and discuss on it.

Response: Thank you for this observation. We have updated the discussion to reflect some of the interrelations and their implications in the first paragraph. A detailed gender analysis was not included in this as it is part of a multi-country paper which is currently under review. In this paper, we also included results by different groups and the voices of different genders are included.

Comment 3: Third, think of the idea to include as an annex the structured guide used in interviews. It could be useful for other researchers interesting to replicate the study in their settings or conduct similar research.

Response: Thank you for the suggestion. A structured guide will be accessible as part of the data sharing policies in line with the institutional guidelines. A data sharing statement with the link to the institutions microdata portal had already been provided in the main document (See page 18). Comment 4: Number of pages correspond to the ones inserted by authors at the bottom right of the pages.

Response: The page numbers have been updated.

Comment 5: STRENGTHS AND LIMITATIONS OF THIS STUDY: PAGE 3; line 51: "(...) access in urban poor boor settings". Correct spelling, please.

Response: Thank you for the observation. The entire section has been updated (See page 3). Comment 6: METHODS: PAGE 5; line 121: Eliminate please one of the references to Table 2. Response: One 'table 2'has been removed. (See page 5)

Comment 7: RESULTS: (At the subsection, Recommendations to reduce healthcare access barriers): PAGE 14. For the description in the manuscript and the nature of the recommendation, I wonder if it would be better to place it within the system-level recommendations, specially the idea of "including access to affordable health insurance and more economic opportunities".

Response: This is noted. We presented the results based on who made the recommendations and where the recommendation was seen to be appropriate. The community members were strong on requesting for financial risk protection and economic opportunities yet the policymakers who work at a higher level did not mention this as much. We have updated the text to reflect this. (See page 14 and 15).

Comment 8: DISCUSSION: PAGE 15; line 374: Does it refer to the Nairobi Cross-sectional Slums Survey (NCSS)? Please correct, if so.

Response: Yes, it refers to the NCSS. This has been corrected in the main document. (Page 16).

Comment 6: PAGE 15: line 398- PAGE 16; line 403: It seems to be a bit contradicting the idea of the applicability in other settings. First it is mention that "Multi-sectoral strategies are needed (...), in this an related settings..."; and then you present it as a limitation "(...) information from this setting (...) might not necessarily be applicable in other settings". Please, review it and explain reasons for changing or not.

Response: Thank you for this reflection. We acknowledge the reference to this as a limitation because generally the qualitative nature of the study means that the views and responses of the participants are unique to them, thus may not be generalizable to others. Regardless, it is important to acknowledge the importance of multi-sectoral action to address the barriers to existing health inequalities in this setting.

Comment 7: PAGE 16; line 403. It seems as if the text guide were an error. Review, please. Response: The entire document has been updated.

Comment 8: TABLE 1: I wonder there is an error in the column "Needed healthcare in the month prior to the interview". Is it correct the number 107? Please, if so, explain the meaning of the data Response: Thank you for this observation. The numbers in Table 1 have been revised. In one of the sites-Korogocho, 62 participants and not 107 cited that they had needed healthcare services in the month before the interview was conducted. (See page 8).

Response to Reviewer 2 Comments to Author:

Dr. Ursula Trummer, Center for Health and Migration, Vienna

Comment 1: "slum areas" please describe the main features of such an area esp. in health-related terms, e.g. space (overcrowded living space?), sanitation (drinkable water, washing hands..) cooking facilities, average income and / or poverty level (absolute/relative poverty)

Response: Thank you for your comment. Additional information has been included on these particular study sites.

Comment 2: Please clarify the rationale of choosing two different settings - is there a hypothesis that some factors make a difference?

Response: Thank you for your comment. As noted in the background section, paragraph 4 of the introduction, this draws on data collected from a multi-country stud. In Kenya, the two sites were the setting where the study was conducted and therefore the reason for inclusion of both sites. While both sites are slums, they present with unique characteristics as described in the study setting. The unique features of the two sites therefore present a deeper insight in understanding the barriers to health care and contribute to enriching this study's findings.

Comment 3: in the analysis, please contextualise and explain the choice of quotes: are they representative for other answers? or a result of a discussion and consensus-finding process? Response: Thank you for your comment. We have updated this on page 9. As part of the analysis and reporting we identified appropriate quotes to respond to questions on what the major barriers to healthcare access are. These were obtained during the data collection exercise. We did not include quotes from the feedback sessions.

Comment 4: are the free maternity health services the main service type for your analysis? If so, please clarify; it not, please elaborate the range of services available

Response: Thank you for your comment. The analysis covered general population health services of which free maternity health services are included. As noted in the background, the data included in this paper were part of a slum-wide survey to understand existing models of health services and how these could be improved to promote health access for all. Services explored included preventive and curative healthcare for all population groups. Additional information is provided in the study protocol (Bakibinga, P., Kabaria, C., Kyobutungi, C. et al. A protocol for a multi-site, spatially-referenced household survey in slum settings: methods for access, sampling frame construction, sampling, and field data collection. BMC Med Res Methodol 19, 109

(2019). https://doi.org/10.1186/s12874-019-0732-x). This has been included in the main document. Comment 5: "People with disabilities" -please specify which kind of disabilities (physical/mental) Response: Specified that it is persons with physical disabilities

Comment 6: In your description, "need factors" seem to vary between settings,

with diarrhoea and pneumonia in the two settings and accidents, TB, diabetes, hypertension in only one setting - please elaborate your analysis on this point

Response: Thank you for this observation. In the study setting, we elaborate on the differences between the two sites. We have also added a reflection on this in the results. It is important to note that this is qualitative data. Population based surveys show that the differences between the sites are minimal in relation to disease profiles.

Comment 7: add Covid 19, the analysis is marginal and should be either elaborated or dropped. If elaborated, issues of access to vaccination, testing, means of protection in this specific setting should be raised.

Response: This is noted. Because the project was implemented partly during the first wave of the pandemic in the country we were able to obtain experiences related to the impact of the pandemic and its responses. However, we have already published two papers on the same. References 4 & 29 are the two papers in the section. We have added information to explain this on page 14 as deleting it would imply ignoring the influence of the pandemic on the study participants and the project's findings.

Comment 8: the analysis and discussion paragraph is not consistently related to the results presented from the interviews (e.g. points like poor sanitation, hygiene)

Response: This is noted. There we attempts to maintain the text to a number recommended by the journal for ease of reading so some of the text reported in the results (analysis) is not repeated in the discussion in detail. However, the current text is representative specifically on the environment where we note poor sanitation and hygiene on pages 11-12, in the discussion, we refer to the same on page 16 in the discussion.

VERSION 2 – REVIEW

REVIEWER	Urtaran-Laresgoiti, Maider University of Deusto, Deusto Business School Health
REVIEW RETURNED	30-Dec-2021

GENERAL COMMENTS	Dear authors,
	I have noticed a big step toward a more comprehensive version of the paper, and I believe changes in the manuscript have improve the quality of it considerably.
	As I stated in my last letter to you, I consider the research being valuable for decision making with respect to measures and policies that could improve access to health care for urban more deprived populations.
	Although improvements are notorious, I suggest authors to review some points before publication, and respond to the following questions that were already posed in the previous revision.
	First, the suggestion to include a gender based analysis or discussion, as it could be interesting to show gender differences with respect to the barriers in access.
	Second, to include as an annex the structured guide used in interviews. It could be useful for other researchers interesting to replicate the study in their settings or conduct similar research.
	I would be happy to know from your responses.

REVIEWER	Trummer, Ursula Center for Health and Migration, Vienna
REVIEW RETURNED	12-Jan-2022
GENERAL COMMENTS	thanks to the authors for taking up all remarks and questions from the first review. One thing that opens up an interesting question to the reader is the mentioning of hypertension and diabetes for the Viwandali settlements. This would need some contextualisation. If there is some in the qualitative interviews and/or in the available literature, it would be worth including it.

VERSION 2 – AUTHOR RESPONSE

Response to Reviewer 1:

Mr. Maider Urtaran-Laresgoiti, University of Deusto

Comment 1: First, the suggestion to include a gender based analysis or discussion, as it could be interesting to show gender differences with respect to the barriers in access.

Response: This is noted. We previously noted that quantitative data from the study has been analysed as part of a multi-country paper currently under consideration under the BMJ Global Health. In this paper, we used the Andersen Behavioural Model (ABM) to assess challenges to healthcare utilisation by the general population. The quotes we included are representative of both women and men. A review of our data did not show maor differences between the two study sites and by gender. The role of gender was only seen in the impact of the environment (security) as a barrier for women more than men. We have added this in lines 288-292 and 396-400.

Comment 2: Third, think of the idea to include as an annex the structured guide used in interviews. It could be useful for other researchers interested to replicate the study in their settings or conduct similar research.

Response: This is noted. A structured guide has been attached to the revised version of the manuscript.

Response to Reviewer 2

Comment 1: Thanks to the authors for taking up all remarks and questions from the first review. One thing that opens up an interesting question to the reader is the mentioning of hypertension and diabetes for the Viwandani settlements. This would need some contextualisation. If there is some in the qualitative interviews and/or in the available literature, it would be worth including it.

Response: This is noted. In lines 400-402 we have reflected on this.

VERSION 3 – REVIEW

REVIEWER	Urtaran-Laresgoiti, Maider University of Deusto, Deusto Business School Health
REVIEW RETURNED	11-Mar-2022

GENERAL COMMENTS	Dear authors,
	Thank you very much for considering the suggestions. I believe the paper really improves, in content and format.
	I would just want to comment on the annex that I suggest you to include, which is the structured guide used in interviews. I suppose there must be some reason why you have decided not to include it. Is it possible you reconsider it? I would be happy to know from your responses.
	As I have affirm from the beginning, your research adds relevant knowledge to understand the persistent barriers to access quality healthcare services by disadvantaged population groups.
	Overall, I consider that if the raised questions are responded, the article is ready to be published.
	Look forward to knowing for the final decision on the manuscript.
	Best regards,
	Maider Urtaran-Laresgoiti